

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled).
2. (currently amended): A fuel injection valve for opening and closing a needle valve by driving an armature with a solenoid, said fuel injection valve comprising:
 - said needle valve;
 - said armature;
 - said solenoid comprising a coil; and
 - a buffer portion damping a change of fuel pressure caused by valve bounce when the needle is closed, said buffer portion being an elastic member disposed at a position at which said buffer portion faces and contacts a fuel passage located at an upstream side with respect to an end face of said armature located on a side of a nozzle opening side,wherein said elastic member is provided between a sleeve and ~~said~~a core in order to form said buffer portion, said sleeve being disposed between ~~a~~said core and a valve holder of the solenoid, said elastic member being attached to a portion of said sleeve located near an end portion of said coil, said end portion of said coil being the end portion of said coil nearest to said needle valve with respect to an opposite end portion of said coil, and said elastic member extending in a perpendicular direction away from said sleeve toward said core.

3. (withdrawn): A fuel injection valve according to claim 1, wherein an elastic member is provided between a sleeve disposed between a core and a valve holder of a solenoid, and said core, to form said buffer portion.

4. (withdrawn): A fuel injection valve according to claim 1, wherein a coil case is provided between a core and a housing and adapted to seal, at the inner and outer diameter sides thereof, the core and the housing by O-rings, respectively, and a sleeve is provided on the inner diameter side of the coil case and forming an air gap between said sleeve and said valve body, wherein said buffer portion is formed by each of said O-rings.

5. (withdrawn): A fuel injection valve according to claim 1, wherein said buffer portion is formed by enlarging the diameter of an O-ring inserted between a core and a housing on a nozzle opening side of a coil bobbin.

6. (previously presented): A fuel injection valve for opening and closing a needle valve by driving an armature with a solenoid, said fuel injection valve comprising:

said needle valve;

said armature;

said solenoid;

a sleeve; and

a buffer portion damping a change of fuel pressure caused by valve bounce when the needle is closed, said buffer portion being an elastic member disposed at a position at which said buffer portion faces and contacts a fuel passage located at an upstream side with respect to an end face of said armature located on a side of a nozzle opening side,

wherein said buffer portion contacts fuel in said fuel passage and said buffer portion is located between said sleeve and a core of said fuel injection valve.

7. (previously presented): A fuel injection valve for opening and closing a needle valve by driving an armature with a solenoid, said fuel injection valve comprising:

said needle valve;

said armature;

said solenoid;

a sleeve; and

a buffer portion damping a change of fuel pressure caused by valve bounce when the needle is closed, said buffer portion being an elastic member disposed at a position at which said buffer portion faces and contacts a fuel passage located at an upstream side with respect to an end face on a nozzle opening side of said armature,

wherein said buffer portion is located between said sleeve and a core of said fuel injection valve and said buffer portion contacts fuel in said fuel passage.

8. (previously presented): A fuel injection valve for opening and closing a needle valve by driving an armature with a solenoid, said fuel injection valve comprising:

said needle valve;

said armature;

said solenoid; and

means for damping a change of fuel pressure caused by valve bounce when the needle is closed, said means being an elastic member disposed at a position at which said means faces and

contacts a fuel passage located at an upstream side with respect to an end face of said armature located on a side of a nozzle opening side.

9. (previously presented): A fuel injection valve for opening and closing a needle valve by driving an armature with a solenoid, said fuel injection valve comprising:

said needle valve;

said armature;

said solenoid; and

means for damping a change of fuel pressure caused by valve bounce when the needle is closed, said means being an elastic member disposed at a position at which said means faces and contacts a fuel passage located at an upstream side with respect to an end face on a nozzle opening side of said armature.